

-- 110. A composite bone graft, comprising:

a first substantially planer cortical bone portion;

a second substantially planer cortical bone portion provided on said first substantially planer cortical bone portion to form a graft unit; and

one or more bone pins for holding together said graft unit, said one or more bone pins are provided perpendicular to or parallel to an interface of said first substantially planer cortical bone portion and said second substantially planer cortical bone portion, wherein said composite bone graft does not comprise an adhesive.

111. A composite bone graft, consisting essentially of:

a first substantially planer cortical bone portion;

a second substantially planer cortical bone portion provided on said first substantially planer cortical bone portion to form a graft unit; and

one or more bone pins for holding together said graft unit, said one or more bone pins are provided perpendicular to or parallel to an interface of said first substantially planer cortical bone portion and said second substantially planer cortical bone portion.

112. A composite bone graft, comprising: two or more distinct, adjacent, cortical bone portions, said distinct, adjacent, cortical bone portions each comprising a face complimentary to a face on an adjacent cortical bone portion, each face comprising a single projection or a single depression, such that adjacent faces are complimentary, and a single projection interlocks with a single depression, to provide an interlocking fit between said adjacent bone portions, wherein said composite bone graft does not comprise an adhesive.

113. A composite bone graft, consisting essentially of: two or more distinct, adjacent, cortical bone portions, said distinct, adjacent, cortical bone portions each comprising a face complimentary to a face on an adjacent cortical bone portion, each face comprising a single projection or a single depression, such that adjacent faces are complimentary, and a single projection interlocks with a single depression, to provide an interlocking fit between said

adjacent bone portions; and one or more locking pins comprising cortical bone, partially or entirely traversing a dimension of said composite bone graft, said one or more locking pins provided perpendicular to or parallel to an interface between adjacent bone portions.

114. A composite bone graft, comprising: two or more distinct, adjacent, cortical bone portions, said distinct, adjacent, cortical bone portions each comprising a face complimentary to a face on an adjacent cortical bone portion, each face comprising a single projection or a single depression, such that adjacent faces are complimentary, and a single projection interlocks with a single depression, to provide an interlocking fit between said adjacent bone portions; and one or more locking pins comprising cortical bone, partially or entirely traversing a dimension of said composite bone graft, said one or more locking pins provided perpendicular to or parallel to an interface between adjacent bone portions, wherein said composite bone graft does not comprise an adhesive.
115. A composite bone graft comprising two or more distinct, adjacent, cortical bone portions layered to form a graft unit; one or more bone pins provided perpendicular to an interface between adjacent bone portions; and a first chamfered edge and a second chamfered edge, said first chamfered edge provided along a length of said composite bone graft at its top edge, and said second chamfered edge provided along a length of said composite bone graft at its bottom edge, such that the chamfered edges are diametrically opposed, wherein said composite bone graft does not comprise an adhesive.
116. The composite bone graft of any one of claims 110 or 111 said first substantially planer cortical bone portion comprises one or more cortical bone planks, and said second substantially planer cortical bone portion comprises one or more cortical bone planks.

117. A composite bone graft, comprising:

a first cortical bone portion;

a second cortical bone portion provided on said first cortical bone portion to form a graft unit; and

one or more bone pins for holding together said graft unit, said one or more bone pins are provided perpendicular to or parallel to an interface of said first cortical bone portion and said second cortical bone portion, wherein said composite bone graft does not comprise an adhesive.

118. The composite bone graft of claim 117, said first cortical bone portion comprises one or more cortical bone planks, and said second cortical bone portion comprises one or more cortical bone planks.

119. The composite bone graft of claim 118, said first cortical bone portion comprises a first face comprising a single protrusion and said second cortical bone portion comprises a second face comprising a single depression complimentary to said first face, such that said first face and said second face interlock.

120. The composite bone graft of any one of claims 110-115, 117-118, or 119, said composite bone graft further comprising a first top surface and a second bottom surface, said first top surface and said second bottom surface comprising a plurality of continuous linear protrusions defining a saw-tooth pattern.

121. The composite bone graft of any one of claims 116, said composite bone graft further comprising a first top surface and a second bottom surface, said first top surface and said second bottom surface comprising a plurality of continuous linear protrusions defining a saw-tooth pattern.

122. The composite bone graft of any one of claims 110 or 111, said composite bone graft is a composite trapezoid wedge, said composite trapezoid wedge, comprising:

a top textured surface;

a bottom textured surface;

an anterior height of from about 3.0 mm to about 30.0mm;

a posterior height of from about 5.0 mm to about 50.0 mm;

a composite width of from about 4.0 mm to about 20.0 mm; and

a length of from about 5.0 mm to about 50.0 mm, wherein said top textured surface and said bottom textured surface are opposing and are disposed perpendicular to interfaces of said bone portions, said top textured surface and said bottom textured surface comprises a plurality of continuous linear protrusions defining a saw-tooth pattern.

123. The composite bone graft of any one of claims 110 or 111, said composite bone graft is a composite parallel block, said composite parallel block comprising:

a top textured surface;

a bottom textured surface;

a height of from about 3.0 mm to about 30.0 mm;

a composite width of from about 4.0 mm to about 20.0 mm; and

a length of from about 5.0 mm to about 50.0 mm, wherein said top textured surface and said bottom textured surface are opposing and are disposed perpendicular to interfaces of said bone portions, said top textured surface and said bottom textured surface comprises a plurality of continuous linear protrusions defining a saw-tooth pattern.

124. The composite bone graft of claim 110, said composite bone graft is a composite cervical wedge, said composite cervical wedge comprising:

a top textured surface;

a bottom textured surface;

a first width of from about 10.0 mm to about 24.0mm;

a second width of from about 4.0 mm to about 16.0 mm;

a composite anterior height of from about 3.0 mm to about 30.0 mm;

a composite posterior height of from about 5.0 mm to about 50.0 mm; and

a diameter of from about 10.0 mm to about 20.0 mm, wherein said top textured surface and said bottom textured surface are opposing and are disposed parallel to interfaces of said bone portions, said top textured surface and said bottom textured surface comprises a plurality of continuous linear protrusions defining a saw-tooth pattern.

125. The composite bone graft of claim 110, said composite bone graft is a composite cervical block, said composite cervical block comprising:

- a top textured surface;
- a bottom textured surface;
- a first width of from about 10.0 mm to about 24.0mm;
- a second width of from about 4.0 mm to about 16.0 mm;
- a composite height of from about 3.0 mm to about 30.0 mm; and
- a diameter of from about 10.0 mm to about 20.0 mm, wherein said top textured surface and said bottom textured surface are opposing and are disposed parallel to interfaces of said bone portions, said top textured surface and said bottom textured surface comprises a plurality of continuous linear protrusions defining a saw-tooth pattern.

126. The composite bone graft of any one of claims 123 or 125, further comprising a through-hole entirely traversing said composite bone graft and disposed substantially perpendicular to interfaces of said bone portions.

127. The composite bone graft of claim 126, said through-hole comprising a cross-section having a shape selected from the group consisting of: substantially round; substantially elliptical; and substantially oval.

128. The composite bone graft of claim 112, further comprising one or more bone pins.

129. The composite bone graft of claim 128, one or more bone pins comprise one or more cortical bone pins.

130. The composite bone graft of claim 129, said one or more cortical bone pins are located perpendicular to interfaces of adjacent bone portions, and entirely traverse said composite bone graft.

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131. The composite bone graft of claim 130, said one or more cortical bone pins comprise locking pins located parallel to interfaces of adjacent bone portions, where one locking pin is provided at each interface of adjacent bone portions parallel to that interface, said locking pins partially traverse said composite bone graft.

132. The composite bone graft of any one of claims 110 or 111, said bone portions comprise allogenic or xenogenic bone.

133. The composite bone graft of any one of claims 110-115, or 117, said composite bone graft further comprising a top surface; a bottom surface; a diameter of from about 10.0 mm to about 20.0 mm; a width of from about 12.0 mm to about 25.0 mm; an anterior composite height of from about 5.0 mm to about 10.0 mm; and a posterior composite height of from about 5.0 mm to about 15.0 mm.

134. The composite bone graft of claim 133, said top surface and said bottom surface comprising a plurality of continuous linear protrusions defining a saw-tooth pattern.

135. The composite bone graft of any one of claims 121<sup>ok</sup>, 124<sup>ok</sup>, or 125, said continuous linear protrusions comprise a height of from about 0.1 mm to about 5.0 mm.

136. The composite bone graft of claim 120, said plurality of continuous protrusions having a height of from about 0.1 mm to about 5.0 mm.

137. The composite bone graft of claim 122, said plurality of continuous protrusions having a height of from about 0.1 mm to about 5.0 mm.

138. The composite bone graft of claim 123 said plurality of continuous protrusions having a height of from about 0.1 mm to about 5.0 mm.

139. The composite bone graft of claim 134, said plurality of continuous protrusions having a height of from about 0.1 mm to about 5.0 mm. --